# This Page Is Inserted by IFW Operations and is not a part of the Official Record

### BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

## IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

com. USS420,17)

### PATENT ABSTRACTS OF JAPAN

(11)Publication number:

02-187402

(43) Date of publication of application: 23.07.1990

(51)Int.Cl.

CO8F 2/44 CO8F 2/20

(21) Application number: **01-006232** 

(71)Applicant : DAINICHISEIKA COLOR & CHEM

MFG CO LTD

(22) Date of filing:

16.01.1989

(72)Inventor: OKURA KEN

SHINAGAWA YUKIO SHIBATA TAMIAKI

# (54) PRODUCTION OF COLORED PEARL-LIKE POLYMER FINE PARTICLES

(57) Abstract:

PURPOSE: To obtain the title fine particles containing a pigment uniformly dispersed into a spherical polymer fine particles and free from color-dropping phenomenon by subjecting an ethylenic unsaturated monomer containing a silane coupling agent-treated pigment to suspension heat polymerization in the presence of a protecting colloid agent in water. CONSTITUTION: An ethylenic unsaturated monomer (e.g. ethylene glycol diacrylate) containing a silane coupling agent (e.g. vinyltrichlorosilane)-treated pigment (preferably inorganic pigment, e.g. titanium dioxide or iron oxide based pigment) is subjected to suspension heat polymerization in the presence of a protective colloid agent (e.g. PVA) in water to provide the aimed polymer fine particles.

#### **LEGAL STATUS**

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]



RESEARCH

**PRODUCTS** 

**INSIDE DELPHION** 

### The Delphion Integrated View: INPADOC Rec rd

Buy Now: PDF | More choices...

Tools: Add to Work File: Create new Work File

View: Jump to: Top

Go to: Derwent...

High

Resolution

Title: JP2691438B2:

ণ্ড Country:

JP Japan

ই Kind:

**B2** Published registered Patent Specification i

S Inventor:

None

S Assignee:

None

Published / Filed:

**1997-12-17** / 1989-01-16

**§** Application Number:

JP1989000896232

얗IPC Code:

C08F 2/44; C08F 2/18;

& ECLA Code:

None

Priority Number:

1989-01-16 **JP1989000896232** 

**₹INPADOC** 

Legal Status:

None

Buy Now: Family Legal Status Report

P Designated Country:

DE ES FR GB IT

g Family:

B P	uy DF	Publication	Pub. Date	Filed	Title	
[	ķ	US5420177	1995-05-30	1993-07-19	Method for producing colored and exactly spherical fine-grains of polymer	
	N	JP2691438B2	1997-12-17	1989-01-16		
[	N	JP2187402A2	1990-07-23	1989-01-16	PRODUCTION OF COLORED PEARL-LIKE POLYMER FINE PARTICLES	
[	N	ES2091769T3	1996-11-16	1990-01-15	UN METODO PARA PRODUCIR GRANOS FINOS DE POLIMERO COLOREADOS Y EXACTAMENTE ESFERICOS.	
	À	EP0379122B1	1996-07-17	1990-01-15	A method for producing colored and exactly spherica fine-grains of polymer	
	A	EP0379122A3	1991-07-10	1990-01-15	A method for producing colored and exactly spherica fine-grains of polymer	
		EP0379122A2	1990-07-25	1990-01-15	A method for producing colored and exactly spherica fine-grains of polymer	
	Z	DE69027787T2	1997-03-06	1990-01-15	VERFAHREN ZUR HERSTELLUNG VON GEFAERBTEN UND GENAU SPHAERISCHEN, FEINKOERNIGEN POLYMEREN	
	Z	DE69027787C0	1996-08-22	1990-01-15	VERFAHREN ZUR HERSTELLUNG VON GEFAERBTEN UND GENAU SPHAERISCHEN, FEINKOERNIGEN POLYMEREN	
	9 family members shown above					

% Other Abstract Info:

JAPABS 140459C000065







Gallery of



(11) Publication number:

0218

Generated Document.

#### PATENT ABSTRACTS OF JAPAN

(21) Application number: 01006232

(51) Intl. Cl.: C08F 2/44 C08F 2/20

(22) Application date: 16.01.89

(30) Priority:

(43) Date of application

23.07.90

publication:

(84) Designated contracting states: CO LTD

(72) Inventor: OKURA KEN

SHINAGAWA YUKIO SHIBATA TAMIAKI

(71) Applicant: DAINICHISEIKA COLOR & CHI

(74) Representative:

#### (54) PRODUCTION OF **COLORED PEARL-LIKE** POLYMER FINE PARTICLES

(57) Abstract:

PURPOSE: To obtain the title fine particles containing a pigment uniformly dispersed into a spherical polymer fine particles and free from color-dropping phenomenon by subjecting an ethylenic unsaturated monomer containing a silane coupling agent-treated pigment to suspension heat polymerization in the presence of a protecting colloid agent in water.

CONSTITUTION: An ethylenic unsaturated monomer (e.g. ethylene glycol diacrylate) containing a silane coupling agent (e.g. vinyltrichlorosilane)-treated pigment (preferably inorganic pigment, e.g. titanium dioxide or iron oxide based pigment) is subjected to suspension heat polymerization in the presence of a protective colloid agent (e.g. PVA) in water to provide the aimed polymer fine particles.

COPYRIGHT: (C)1990,JPO&Japio